United States General Accounting Office

GAO

Report to Congressional Requesters

October 1991

STRATEGIC SEALIFT

Part of the National Defense Reserve Fleet Is No Longer Needed

GAO/NSIAD-92-03

GAO
United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-244470

October 7, 1991

The Honorable Walter B. Jones
Chairman, Committee on Merchant
Marine and Fisheries
House of Representatives

The Honorable Ron Wyden
Chairman, Subcommittee on Regulation,
Business Opportunities, and Energy
Committee on Small Business
House of Representatives

The Honorable William S. Broomfield
House of Representatives

As requested we reviewed the National Defense Reserve Fleet's viability as a national sealift asset and evaluated several aspects of the Maritime Administration's management of the fleet. Our report addresses the changing character of this fleet and its contribution in deploying and sustaining U.S. troops during the recent Persian Gulf crisis. Also addressed are the revenue implications of the domestic and foreign scrapping of Reserve Fleet ships and the administration's maintenance and management practices with respect to the fleet's older, less-ready portion. We present matters for congressional consideration and recommendations whose aim is to ensure that the Reserve Fleet continues to be a viable sealift asset.

We are sending copies of this report to the Chairmen, Senate and House Committees on Armed Services; the Administrator of the Maritime Administration; and the Secretaries of Defense, Navy, and Transportation. Copies will also be made available to others upon request.

Please contact me on (202) 275-6504 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix IV.

Martin M Ferber
Director, Navy Issues

Executive Summary

Purpose

Recent media reports have described part of the National Defense Reserve Fleet as the "ghost fleet" and its ships as "rust buckets." Concerned about the continued utility of the Reserve Fleet and its overall management by the Maritime Administration, the Chairman, House Committee on Merchant Marine and Fisheries, the Chairman, Subcommittee on Regulation, Business Opportunities, and Energy, House Committee on Small Business, and the Honorable William S. Broomfield requested a GAO review.

GAO's report addresses (1) the changing character of the National Defense Reserve Fleet and its contribution in deploying and sustaining U.S. troops during the recent Persian Gulf crisis; (2) the revenue implications of the domestic and foreign scrapping of Reserve Fleet ships; and (3) the activation capability of the older, less-ready portion of the Reserve Fleet as well as the Maritime Administration's maintenance and other management practices with respect to these ships.

Background

The National Defense Reserve Fleet is divided into two components.

- One component—the Ready Reserve Force (RRF)—includes 96 ships that are routinely maintained so that they could be activated in 5, 10, or 20 days. The Maritime Administration budgets about $225 million for RRF ships.
- The other component (the non-RRF) consists of 116 ships: 71 Victory-class ships built during World War II and 45 others of varying age and time in reserve status. The non-RRF ships receive far less maintenance than RRF ships and would require much longer activation times—between 30 and 120 days. The Maritime Administration spends about $2 million a year to retain these ships. Some of them are being held for upgrade to the RRF or for other programs.

Because of their physical appearance, the non-RRF ships are often referred to as "rust buckets." The Maritime Administration has developed a plan to gradually scrap them over the next decade. The Department of Defense (DOD) is continuing to study total sealift requirements. The condition and continued usefulness of the non-RRF ships are the principal subjects of this report.

Results in Brief

Current U.S. sealift capabilities were severely strained during the recent Persian Gulf war, but the non-RRF ships were not used during this crisis. GAO believes these older, less-ready ships are no longer needed, given the

availability and capability of other, quicker-response sealift assets (including the ships in the RRF).

GAO estimates that scrapping the obsolete Reserve Fleet ships could (1) save about $10 million in direct maintenance costs over the next 10 years and (2) generate an estimated $38 million to $42 million to improve the RRF if the ships were sold to the highest foreign or domestic bidders. Legislation pending before Congress that would limit the sale of Reserve Fleet ships (built before 1946) to domestic scrapping companies would lower these revenue estimates.

Despite the non-RRF ships' physical appearance, they could probably be activated. However, GAO believes that these ships need to be better maintained and managed if they are to be relied on as viable sealift assets.

Principal Findings

Questionable Need for All Reserve Ships

Although the recent U.S. deployment to Saudi Arabia during the Persian Gulf crisis was the largest concentrated sealift activity since World War II, the non-RRF ships in the Reserve Fleet were not used. These ships were excluded because of (1) the lack of indication that there would be enough time to activate and use them; (2) their relatively small size, slow speed, and long unloading times compared with other ships used; and (3) the ready availability of privately owned U.S. and foreign commercial ships.

Because of their specific technological limitations, it is difficult to envision a scenario in which the non-RRF ships would be needed. In a sudden regional conflict there would likely not be time to activate them, as the Persian Gulf crisis showed. In a longer regional conflict it seems likely that sufficient resupply sealift would be available on commercial U.S. container ships, as was the case after troop deployments to the Persian Gulf. These commercial ships would also be assisted in resupply missions by RRF ships and other government-owned and controlled cargo ships after they deployed combat forces. Finally, the probability of a global war, which could include large losses of merchant ships, is probably lower now than it has been since the Reserve Fleet was formed in 1946.

Sales to Foreign or Domestic Scrapping Firms

GAO's review of sale records shows that domestic firms usually bid considerably lower than foreign firms and that limiting future sales to domestic firms would substantially reduce sale proceeds. GAO's estimated impact for scrapping most non-RRF ships was calculated anticipating the foreign scrapping firms' higher bids.

Ship Activation, Maintenance, and Management

Assisted by marine surveyors from the American Bureau of Shipping and the Maritime Administration, GAO conducted physical inspections of selected non-RRF ships. It found that while their appearance was poor, the ships could probably be activated if necessary. But GAO's inspections and a review of ship records also indicated that the Maritime Administration had not made necessary repairs or performed enough preventive maintenance.

Although corrective actions to remedy maintenance deficiencies were recommended by independent marine surveyors in 1983 and Maritime Administration personnel in 1985, effective actions have not been taken to correct such conditions. Officials cited the less-ready ships' historic lack of funding and lower priority compared with RRF ships as the principal reasons corrective actions were not taken.

The Maritime Administration also does not have formal plans or arrangements to obtain crews for the non-RRF ships as it does for the RRF. Crews would be hired at the time the ships were activated; however, crew member availability depends on many factors, such as the time required to activate the ships and the individual mariner's willingness to serve when needed. Current crew member data is both inaccurate and insufficient to establish crew availability at any given time.

GAO did not predict the amount of the increased cost to correct these conditions.

Matters for Congressional Consideration

While the non-RRF ships could probably be activated in a national emergency, it appears that they are neither technologically suitable nor likely to be activated and operated efficiently enough to justify their continued retention. Therefore, Congress should consider directing the Maritime Administrator to scrap most of the non-RRF ships as soon as practicable and use the sale proceeds to enhance the RRF. In its consideration, Congress should take into account the significant difference between the amount of revenue likely to be generated from the sale of non-RRF ships to domestic and foreign scrapping companies.

If Congress decides that the non-RRF ships should continue to be gradually phased out, the Maritime Administrator should be directed to improve the ships' maintenance and management. GAO has not estimated the additional costs that would be necessary to better maintain these ships, but Congress will need to consider the increased costs' likely impact on the overall Reserve Fleet's budget. Without a budget increase, additional funds spent improving the non-RRF ships would likely reduce the resources available to the RRF.

Recommendations

GAO makes specific recommendations to the Maritime Administrator in chapter 4 directed at making the Reserve Fleet a viable sealift asset if Congress decides that the non-RRF ships should continue to be gradually phased out.

Agency Comments

Both DOD and the Maritime Administration commented on GAO's draft report (see app. II and III). Although neither agency disagreed with the facts in this report, both felt that GAO's suggestion to accelerate the planned scrapping of the ships was premature. The agencies said that such a decision should be made only after completion of the Defense Department's Mobility Requirements Study.

The Maritime Administration plans to sell the non-RRF ships over the next decade. Legislation pending in Congress would direct the accelerated sale of the non-RRF ships. GAO does not believe the existence of an ongoing Mobility Requirements Study justifies a delay in deciding to accelerate scrapping the non-RRF ships. The Mobility Study is already 7 months overdue and, according to a Defense Department official, is not designed to identify specific requirements for non-RRF ships.

The Maritime Administration said it would take corrective actions in response to GAO's recommendations and stated that many of these improvements could be done without an increase in funds. If properly implemented, these actions should give considerably more assurance that the ships will be a viable strategic sealift asset. It is still not clear, however, that the Maritime Administration has made a commitment to keeping the non-RRF ships properly dehumidified.

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Abbreviations

DOD	Department of Defense
GAO	General Accounting Office
MARAD	Maritime Administration
Non-RRF	Non-Ready Reserve Force
RRF	Ready Reserve Force

Introduction

The Merchant Ship Sales Act of 1946 created a government-owned and administered National Defense Reserve Fleet of inactive but potentially useful merchant ships. The Reserve Fleet was created to provide a surge capability to meet national emergency shipping requirements. In 1976, the Reserve Fleet was separated into two parts: (1) a Ready Reserve Force (RRF) consisting of ships maintained in a more-ready condition to meet more immediate shipping requirements and (2) a less-ready component of ships preserved and retained at very little government expense. This non-Ready Reserve Force (non-RRF) is the principal focus of this report.

The Maritime Administration (MARAD) maintains custody of the Reserve Fleet ships. Over the years, reserve ships have been activated during emergencies, including the conflicts in Korea and Vietnam. For example, 40 percent of the materiel moving to Vietnam in 1967 was transported by ships of the Reserve Fleet. Most recently, 78 of the 96 ships in the RRF were activated to assist in sending and resupplying U.S. troops in Saudi Arabia after Iraq invaded Kuwait. With the exception of two ships that were test-activated in 1985, none of the non-RRF ships has been activated since the Vietnam War.

At one time over 2,000 Reserve Fleet ships were stored at eight different anchorages along the Atlantic, Gulf, and Pacific coasts. Since 1946, a large number of these ships have been sold for scrap, traded for other vessels, or used for purposes not related to transportation. Table 1.1 shows that as of May 31, 1991, the total number of Reserve Fleet ships was down to 212—96 RRF and 116 non-RRF ships.

Table 1.1: Reserve Fleet Inventory as of May 31, 1991

Type of ship	RRF	Non-RRF	Total
Dry cargo			
Break-bulk[a]	51	93[b]	144
Auxiliary crane	8	2	10
Roll-on/roll-off	17	0	17
Barge carrier	4	0	4
Heavy lift	3	2	5
Other	0	4	4
Subtotal	**83**	**101**	**184**
Tankers	11	12	23
Troopships	2	3	5
Total	**96**	**116[c]**	**212**

[a]Ships with conventional storage for noncontainerized general cargo.

[b]Includes 71 Victory ships.

[c]Includes 22 ships held for upgrade or other designated purposes.

The RRF was created in 1976 to improve the overall readiness of the Reserve Fleet. RRF ships are maintained so that they can be activated in 5, 10, or 20 days at predesignated shipyards, repair facilities, or ports, without the need for dry-docking or more expensive repairs (which would be necessary for the other Reserve Fleet ships). These ships are located at Reserve Fleet sites in James River, Virginia; Beaumont, Texas; Suisun Bay, California; and at various other locations (mainly in the United States).

The 116 non-RRF ships include 71 Victory ships, 3 ships built before 1946, and 42 others acquired at later dates. These ships are kept in a much less-ready status than the RRF ships and, according to MARAD, would require from 30 to 120 days to activate. Because these ships receive very little exterior maintenance, they are quite rusty. This portion of the Reserve Fleet has been dubbed the "ghost fleet" and the ships themselves "rust buckets" by members of Congress and the press. As of May 31, 1991, most of the non-RRF ships were anchored at three Reserve Fleet sites located in James River, Virginia (39 ships); Beaumont, Texas (25 ships); and Suisun Bay, California (44 ships). Figure 1.1 shows some of the rusty non-RRF ships anchored at the James River, Virginia, site.

Figure 1.1: Rusty Non-RRF Ships at the James River Fleet Site

Management and Utilization of the Fleet

MARAD, under the Department of Transportation, is responsible for the preservation and maintenance of Reserve Fleet ships. In consultation with the Department of the Navy, MARAD retains those ships that are determined to have a national defense purpose and disposes of those that are no longer militarily useful. During military emergencies, Reserve Fleet ships are activated at the request of the Department of Defense (DOD), assigned to the Military Sealift Command, and operated by private ship-operating firms. These firms are responsible for overseeing repairs, providing crews and stores, and, in general, performing those duties necessary to maintain a vessel in active status.

The RRF budget for fiscal year 1991 is about $225 million. This budget provides for additions, replacements, and upgrades of RRF ships, as well as for maintenance facilities and ship maintenance and operation. The Navy's plan is to increase the number of RRF ships to 142 by 1994 in order to meet its current sealift surge capacity requirements.[1]

The cost to preserve the non-RRF ships is relatively small. For example, the non-RRF ships' fiscal year 1991 budget is only about $7 million, about $2 million of which is for direct costs to provide for ship preservation. The ships' interiors, including all their machinery, are to be kept dehumidified, and their hulls are to be provided cathodic protection (which also prevents deterioration). DOD and MARAD officials have continued to justify keeping the non-RRF ships for three main reasons: (1) the ships

[1]This plan could change depending on an overall Mobility Requirements Study that is currently being conducted by DOD. The study will identify likely scenarios that place demands on lift assets and define alternative lift methods to meet requirements in the year 1999.

could help make up for shortfalls in U.S. sealift capability; (2) they would become necessary as fillers if there were a prolonged global war with heavy shipping losses (such as in World War II); and (3) their gradual sale as scrap metal provides additional funds that are used to help expand and maintain the Reserve Fleet.

Ship Disposal

The Reserve Fleet's size has steadily decreased as older ships have been sold for scrap and others have been given to state governments (for use as artificial reefs), nonprofit organizations, and the Navy (for target practice). Since 1977, section 510(i) of the Merchant Marine Act, 1936, as amended (46 app. U.S.C.1160 (i)), has been a primary method used to dispose of older ships and acquire newer, larger ships for the Reserve Fleet. (More information on this program is provided in app. I.) Until recently, this legislation authorized the Secretary of Transportation to acquire newer vessels in direct exchange for obsolete Reserve Fleet vessels at their respective scrap values. Because this simultaneous exchange may not have fully maximized the return to the government, section 510(i) was amended in November 1990. MARAD is now authorized by law (P.L. 101-595) to acquire suitable vessels with funds derived from the sale of obsolete reserve vessels. The previous requirement of a ship exchange is no longer applicable, and now the Secretary of Transportation can sell scrap vessels when prices are high and later use the funds at the most opportune time to acquire militarily useful vessels for the Reserve Fleet.

Congressional Concern

In June 1990, we were asked to review the Reserve Fleet program because Congress had become increasingly concerned over the overall management and continued military usefulness of the non-RRF ships. Also, during the last congressional session, legislation was introduced that would require all Reserve Fleet ships built prior to 1946 to be scrapped domestically. Although this legislation was not passed, similar legislation was reintroduced in the current congressional session.

Objectives, Scope, and Methodology

Our review addressed the changing character of the Reserve Fleet and its contribution in deploying and sustaining U.S. troops during the recent Persian Gulf crisis, sought to determine whether the non-RRF ships were in the physical condition necessary to be considered viable sealift assets; and assessed MARAD's managerial practices to determine whether they were conducive to ensuring the viability of the non-RRF portion of the National Defense Reserve Fleet. Specific objectives were

to (1) ascertain the criteria used to retain ships in the Reserve Fleet, (2) determine the effect of domestically scrapping reserve ships, and (3) evaluate MARAD's administration of its Ship Exchange Program.

We gathered and evaluated data concerning the domestic scrapping of excess Reserve Fleet ships and examined the likely impact of these ships' being required to be scrapped domestically.

To assess the viability of the non-RRF ships as a military asset, we examined (1) the overall condition of the ships, (2) the availability of spare parts, and (3) the likely availability of crew members.

As an aid to determining the overall condition of the non-RRF ships, we reviewed MARAD ship files and interviewed region and fleet office officials. We also obtained individual ship condition information from a 1983 marine survey of the Victory ships—the "Victory Ship Validation Study." In addition, we reviewed a 1985 report on the congressionally mandated test activation of two Victory ships.

To obtain more current information on the condition of the Victory ships, we conducted physical inspections of 18 ships. The ships we selected comprised (1) those ships with the highest humidity readings or the highest number of specific deficiencies (as cited in the validation study) and (2) those with few or no deficiencies. Because of the costs involved, the condition of the hulls and the internal machinery was not analyzed in the validation study and, subsequently, in our review.

Independent marine surveyors from the American Bureau of Shipping, an international ship classification society that establishes standards for the design, construction, and periodic survey of merchant vessels and other marine structures, assisted us with the physical survey at each fleet site. We accompanied these surveyors on each ship and asked them to comment on the significance of specific deficiencies listed in the validation study. We also asked their opinions on (1) whether the condition of the ships had become worse since the original study, (2) what the impacts of high humidity levels were, and (3) how these conditions would effect activation of the ships.

In addition, we inspected six other ships (not Victory ships), two at each fleet site. To determine the condition of these ships, we reviewed individual ship files and questioned MARAD's marine surveyors who accompanied us on our inspections. The ships we inspected were selected in

consultation with MARAD's fleet site officials as representing the best and the worst of the other non-RRF ships at each fleet site.

To determine the availability of shipboard spare parts, we evaluated the fleet's spare parts reports and tested the accuracy of inventory records where applicable. For shore-based spare parts, we determined whether MARAD had current inventory records and tested their accuracy.

To determine the likely availability of crews for non-RRF ship activations, we interviewed various maritime labor union officials and government officials of the U.S. Coast Guard, the Federal Communications Commission, and MARAD.

We reviewed MARAD's ship disposal procedures to determine whether (1) periodic assessments of the ships' condition were performed, (2) current information on the ships' condition was maintained and used in management decisions, (3) criteria for ship disposal had been developed, and (4) written procedures or policies for the removal of parts or equipment prior to ship disposal were available and followed.

MARAD's administration of aspects of its Ship Exchange Program were also evaluated on the basis of transactions between fiscal years 1980 and 1990 during which scrapped ships were exchanged for newer, militarily useful ships no longer needed by their owners.

Our review was performed between June 1990 and May 1991 in accordance with generally accepted government auditing standards.

Congressional Hearings

A joint hearing on the status of the non-RRF ships was conducted by the Subcommittee on Merchant Marine, House Committee on Merchant Marine and Fisheries, and the Subcommittee on Regulation, Business Opportunities, and Energy, House Committee on Small Business, on July 11, 1991. GAO and MARAD testimony at that hearing covered most of the information contained in our June 25, 1991, draft report. Our report has been updated to reflect additional information from that hearing and material subsequently submitted for the record.[2]

[2]Part of the National Defense Reserve Fleet Is No Longer Needed (GAO/T-NSIAD-91-44, July 11, 1991).

Non-RRF Ships Are No Longer Needed

The utility of DOD's sealift capability expenditures during the 1980s was clearly demonstrated during the recent deployment of U.S. forces to the Persian Gulf, which resulted in the largest concentrated sealift activity since World War II. However, the non-RRF ships were not needed or used during this crisis.

Given the increased capabilities of other, quicker-response types of sealift assets, including the RRF, the non-RRF ships are no longer needed. This chapter discusses scrapping the non-RRF ships as soon practicable and applying the proceeds from their sale—currently estimated at about $38 million to $42 million—to expand the RRF.

Improvements in Sealift Capabilities

During the 1980s DOD spent over $7 billion to improve military sealift capabilities. These expenditures provided funding for improvements or expansions of government-owned or controlled sealift assets. Key increases in sealift capabilities were as follows:

- A 25-ship prepositioned force (costing almost $4.2 billion) was deployed. This force includes 13 Maritime Prepositioning Ships, which are grouped into three squadrons. Each squadron is capable of equipping and supplying a Marine Expeditionary Brigade of about 16,500 combat Marines. Another 12 ships constitute the Afloat Prepositioning Ships, which carry Army and Air Force equipment and supplies and a Navy field hospital. Supplies from some of these ships were the first to arrive in Saudi Arabia during the Persian Gulf crisis.
- Eight Fast Sealift Ships (about $827 million) were added. These ships are large, fast, converted container ships modified to a roll-on/roll-off configuration and especially suited to transport Army unit equipment such as tanks, large vehicles, and helicopters. They are maintained in a reduced operating status with a partial crew, allowing activation in 4 days or less.
- Two aviation logistics support ships[1] and two hospital ships were added, and 10 crane ships (about $717 million) were converted. The two aviation logistics support ships provide equipment and support for the maintenance of U.S. Marine Corps fixed and rotary wing aircraft. These ships can be activated in 5 days. The two hospital ships are large, acute-care medical facilities that were converted from commercial tankers. Each ship is capable of being activated in 5 days. The crane ships, part of the

[1]These ships are technically considered part of the non-RRF and were activated for the Persian Gulf war. However, because of their 5-day availability and modernization in the late 1980s, we do not consider them representative of the much older ships in the non-RRF.

RRF with activation expectations of 5 days, can provide mobile loading and off-loading capabilities for non-self-sustaining container ships.

- The RRF was expanded to 96 ships (about $1 billion). The increase was accomplished by the direct purchase of ships no longer needed by commercial ship operators, the exchange of scrap Reserve Fleet ships for obsolete commercial ships, and the acquisition of ships formerly operated by the Navy.

Table 2.1 shows the government-owned or government-chartered strategic sealift assets that were available to DOD on August 7, 1990, when the President decided to send troops to Saudi Arabia in response to Iraq's invasion of Kuwait.

Table 2.1: Strategic Sealift Assets Available as of August 7, 1990

Type of ship	Number
Maritime prepositioning	13
Afloat prepositioning	12
Fast sealift	8
Ready reserve force	96
Non-RRF ships	116
Total	**245**

Source: Data extracted from various DOD and MARAD reports.

Persian Gulf War Experience

As a result of the Iraqi invasion of Kuwait and the U.S. and international response that followed, our sealift capabilities were given a dramatic practical test. According to the Military Sealift Command, as of April 15, 1991, 10 million tons of cargo had been shipped to the Persian Gulf. The ships utilized for this massive operation, as shown in table 2.2, were chartered from U.S. and foreign-flag commercial operators or activated from our own organic sealift assets.

Table 2.2: Sealift Assets Used in Persian Gulf War

Type of ship	Number
Maritime prepositioning	13
Afloat prepositioning	12
Fast sealift	8
Aviation logistics/hospital ships	4
Controlled fleet ships	24
Ready reserve force	74
Newly chartered ships[a]	212
Allied ships on loan	12
Total	**359**

[a]Includes 180 foreign ships and 32 U.S. ships.

Although the U.S. deployment to the Persian Gulf was the largest concentrated sealift activity since World War II, the non-RRF portion of the Reserve Fleet was not needed. These ships were excluded primarily because of (1) the lack of indication that there would be enough time to activate and use them; (2) their relatively small size, slow transit speeds, and long off-loading times compared with RRF and other ships used; and (3) the ready availability of U.S. and foreign-flag commercial ships. Such factors raise questions about when non-RRF ships would ever be needed.

Questionable Need for Non-RRF Ships

According to DOD officials, there is still a requirement that the United States have a combined airlift and sealift capability to deploy and resupply a multidivisional armed force, without allied assistance, in response to a major regional conflict. However, because of the non-RRF's limitations, it is difficult to envision when that portion of the Reserve Fleet would be needed.

In a sudden regional conflict there would likely not be time to activate the non-RRF ships, as the Persian Gulf crisis showed. In a longer regional conflict it seems likely that sufficient resupply sealift would be available with commercial U.S. container ships, as was the case after the initial deployments to the Persian Gulf. These commercial ships would also be assisted in resupply missions by RRF ships and other government-owned and controlled cargo ships after they initially deployed combat forces. Finally, the probability of a global war, which would include large losses of merchant ships, is probably lower now than it has ever been since the Reserve Fleet was first formed.

Accelerated Scrapping of Non-RRF Ships

DOD plans to increase the RRF to 142 ships by 1994. To help accomplish this expansion, MARAD continues to scrap non-RRF ships and use the proceeds to acquire commercial cargo vessels as they become available. As of April 1991, MARAD planned to gradually scrap all non-RRF ships by the year 2000. We concur with this scrapping decision but see little reason for delay. Most of the 116 non-RRF ships could be scrapped, and the proceeds could be used to help improve the RRF.

As discussed previously, MARAD spends about $2 million annually in direct costs to preserve the non-RRF Ships. Assuming a steady decrease in the ships over the next 10 years as they are sold, we expect that MARAD would spend about $10 million for ship maintenance. This figure is conservative because (1) it is not adjusted for inflation and (2) we do not account for the additional cost of management improvements we consider necessary if the ships are to remain viable sealift assets during the interim (see chapter 4).

About a year ago MARAD estimated the non-RRF ships could yield from $97 million to $109 million if the entire fleet were sold. These estimates were based on scrap prices of $130 to $145 per ton. Since then, scrap prices have apparently softened. MARAD's most recent sale of two non-RRF ships to a foreign firm, was for $76 per ton. MARAD estimates that future near-term sales might bring $85 per ton. Accordingly, our estimated range of about $38 million to $42 million in sale proceeds is based upon scrap prices in this $76 to $85 per ton range, which we believe is conservative. However, as discussed in chapter 3, congressional action that would restrict sales of non-RRF ships to domestic scrapping firms would significantly alter this figure.

Therefore, scrapping the non-RRF ships now would (1) save about $10 million in direct preservation expenses that would have been incurred to retain the ships during the next 10 years and (2) generate revenue of about $38 million to $42 million, depending on scrap prices.

Matters for Congressional Consideration

Given the increase in strategic sealift assets during the 1980s and the fact that the non-RRF ships were not used in the Persian Gulf war, we believe that the likelihood of the future need for the non-RRF ships is extremely remote. These ships are neither technologically suitable nor able to be activated and operated efficiently enough to justify their continued retention. Therefore, Congress should consider directing the Maritime Administrator to scrap all of the non-RRF ships (not being held for

RRF upgrade or other purposes) as soon as practicable and use the sale proceeds to enhance the RRF.

Agency Comments and Our Evaluation

Both DOD and MARAD provided comments on our draft report (see app. II and III). MARAD said that the non-RRF ships were technically well suited for carrying ammunition and other break-bulk military cargoes. Both agencies said that any decision on the future need for the non-RRF ships should be made only after there were final results from DOD's ongoing Mobility Requirements Study. The agencies also stated that if the study determined that some or all of the non-RRF ships were no longer needed, they should be scrapped. DOD said that it would support a recommendation from us that, together with MARAD, they develop criteria for determining the size of the non-RRF portion of the Reserve Fleet and then apply this criteria to developing a schedule for scrapping ships that are no longer needed. DOD further said that non-RRF ship reductions should be linked to the planned expansion of the RRF.

After evaluating DOD's and MARAD's comments, we continue to believe that (1) the ships are no longer technologically suitable for modern day strategic sealift requirements and (2) all of the non-RRF ships (not being held for upgrade or other specific purposes) should be scrapped as soon as practicable because of their questionable future need.

MARAD points out that the non-RRF ships are especially well suited for carrying ammunition. We do not disagree. However, for the following reasons, we do not believe this factor is sufficient justification to retain the ships:

- There are thousands of break-bulk cargo ships worldwide. Enough of these ships would be available from our allies in most emergencies, as was the case in the Persian Gulf war.
- The RRF currently has 51 break-bulk ships—each larger and more modern than the non-RRF Victory ships.
- The Afloat and Maritime Prepositioning ships also carry ammunition and can be used to resupply our troops.
- As the Defense Department continues to further containerize supplies, ammunition shipping should become less dependent on break-bulk shipping.

MARAD's plan to scrap the non-RRF ships over the next 10 years—without regard to their specific technological merits—contradicts its argument to retain these ships as ammunition carriers. Furthermore,

DOD officials responsible for the Mobility Requirements Study told us that the study was not designed to identify specific requirements for the non-RRF ships.

We continue to believe that a decision should be made on the status of the non-RRF ships. As this report states, the non-RRF ships are slower, take longer to load and unload, carry smaller amounts of cargo, and require more crew than the newer, larger sealift assets added during the 1980s. The RRF is currently planned to expand to 142 ships by 1994, and the Congress has provided DOD with billions of dollars in additional funding to buy or construct new sealift ships.

MARAD implied that our estimated $38 million to $42 million revenue from the sale of the non-RRF ships assumed that all of them would be scrapped at the same time. Our estimate does not assume that all the ships would be scrapped at once. Rather, our report suggests that Congress direct MARAD to scrap the non-RRF ships (not being held for RRF upgrade or other purposes) as soon as practicable. The decision to scrap the ships would be made now—resulting in a $10 million savings of future preservation costs compared with MARAD's current 10-year scrapping plan. The $38 million to $42 million sales proceeds estimate is based on MARAD's receiving from $76 to $85 per ton. MARAD could sell the ships "as soon as practicable" according to market conditions, as is its current plan.

Domestic Scrapping Would Limit Sale Proceeds

During the last two congressional sessions, legislation was introduced that would require all Reserve Fleet ships built prior to 1946 to be scrapped domestically. Under present scrap market conditions, domestic ship scrappers have bid much less than foreign firms because of various economic, environmental, and safety factors that result in higher costs to U.S. firms. Requiring domestic scrapping would substantially reduce sale proceeds.

Pros and Cons of Domestic-Only Scrapping

U.S. scrapping industry representatives state that under the current ship sales policy, they cannot compete with foreign ship-breaking companies because they are subject to various U.S. regulations that significantly increase their operating costs. Industry representatives state that the cost to comply with U.S. fair labor laws, environmental safeguards, and work place safety standards puts them at a disadvantage in the bidding process.

Proponents of a domestic scrapping requirement argue that MARAD should consider factors other than dollar value when determining how the United States can benefit from the sale of these ship assets. They believe that while domestic scrapping may yield less direct revenues, indirect revenue generated from a revitalized economy could help compensate for the difference. Domestic scrapping advocates point out that a U.S. ship-breaking requirement would generate new jobs in scrapping and related industries. They assert that revitalizing the industry would restore depressed local economies that were affected by the decline of the maritime industry.

Conversely, MARAD officials expressed support for continued open competition between domestic and foreign scrapping companies, viewing it as the best means to maximize the U.S. government's return on the disposal of these vessels. They believe that a domestic scrapping requirement would limit competition, resulting in lower bid offers and less income for the government. MARAD officials assert that limiting offerings to domestic scrapping companies would prevent MARAD from obtaining fair value for the scrapped ships and affect its ability to acquire newer ships for the Reserve Fleet. They also expressed concern that U.S. firms would be unlikely to invest in new ship-breaking capabilities because there was only a limited number of non-RRF ships.

MARAD's Unrestricted Sale Proceeds

MARAD currently solicits and receives offers from both domestic and foreign ship-breaking companies and brokers, awarding contracts to the highest responsible bidder. MARAD's records indicate that business entities that arrange to have ships scrapped overseas have consistently outbid domestic ship-breaking companies. As shown in table 3.1, of the most recent sales of non-RRF ships in which U.S. bidders submitted offers, domestic scrapping would have resulted in substantially lower revenue than MARAD obtained for foreign scrapping.

Table 3.1: Comparison of Revenue Gained From Foreign and Domestic Scrapping

Dollars per ton

Bid due date	Foreign scrapping[a]	Domestic scrapping	Percent reduction[b]
05/21/87	$99.48	$55.00	45
05/21/87	99.48	5.71	94
06/25/87	102.50	55.00	46
11/30/87	66.01	22.80	65
02/16/88	132.28	51.06	61
02/16/88	132.28	40.65	69
03/28/88	120.02	12.41	90
03/28/88	106.17	12.00	89
12/19/89	86.46	7.36	91
02/15/91	76.00	41.60	45

[a]In some cases this data represents the final average price per ton for several ships sold by MARAD.

[b]Limiting sales to domestic scrap firms would have resulted in total sale proceeds being reduced by the stated percentages.

We found that, historically, the disparity between domestic and foreign offers has been fairly consistent. Of the 163 ships traded out for scrap in fiscal years 1980 through 1990, only 21 were scrapped domestically, the last in fiscal year 1986.

If Congress were to pass legislation requiring MARAD to sell only non-RRF ships to be scrapped domestically, sale proceeds would be substantially less. Further, since only 94 ships in the current Reserve Fleet could be affected by a domestic-only scrapping requirement, we believe the market is limited and would be temporary.

Agency Comments and Our Evaluation

DOD commented that our report should be more specific about the potential revenue reduction if MARAD were to restrict sales of non-RRF ships to domestic scrapping firms. MARAD agreed that limiting scrapping to domestic firms would substantially reduce sale proceeds.

We did not attempt to predict future scrap prices—either domestically or from firms overseas. MARAD's own sales history shows that contracts awarded to foreign firms ranged from about $66 to $132 per ton over the last 4 years. Our estimate of the revenue to be obtained from the sale of non-RRF ships was based on the range between MARAD's most recent estimate ($85 per ton) and their most recent sale ($76 per ton). We believe that our report clearly shows that domestic firms have been consistently outbid by foreign firms—from 45 to 94 percent over the past 4 years—and, accordingly, that a domestic-only restriction on MARAD would likely significantly reduce income from non-RRF ship sales.

Non-RRF Ships Could Be Activated, but MARAD's Management Practices Are Weak

After reviewing a 1983 Victory ship survey study and records from the 1985 test activations of two Victory ships, we conducted physical inspections of selected non-RRF ships. We determined that despite their poor appearance, the ships probably could be activated if needed. However, MARAD's current management practices do not ensure that the non-RRF ships can continue to be relied on as viable sealift assets. Our review shows that (1) dehumidification systems are not always effective and deficiencies are not corrected promptly; (2) spare parts are not adequately controlled; (3) the availability of sufficient mariners to crew all the ships is in doubt; (4) current ship condition documentation is not available to make decisions on which ships should be activated first in an emergency or, conversely, which ships should be scrapped first; and (5) written criteria and procedures for ship disposal do not exist.

Successful Activation of Non-RRF Ships

A 1983 study of the condition of the Reserve Fleet's Victory ships, conducted by an independent marine survey firm, concluded that MARAD's preservation methods had been adequate and the ships were in the condition necessary to be activated. The successful activation of two Victory ships in 1985 also demonstrated the ships' adequate condition. Adding this evidence to the results of our own inspections of selected Reserve Fleet ships, we concluded that the fleet's outward appearance was not indicative of its activation potential.

1983 "Victory Ship Validation Study"

In 1982, at the direction of the Joint Chiefs of Staff, MARAD contracted with George G. Sharp, Inc., a marine systems analysis and design firm, to assess the material condition of the Reserve Fleet's Victory-class ships. This study, known as the "Victory Ship Validation Study," was initiated because of the concern over the condition of these older ships built during World War II.

The marine surveyors conducted surveys, visually examining the Victory ships (none of which was activated). Although the internal examination of machinery items and other equipment was facilitated through previous disassembly, no on-board machinery was opened for inspection by the surveyors. On each ship the surveyors examined and rated approximately 200 items. They noted specific deficiencies on each ship and any needed repairs previously identified in the ships' records.

On the basis of the ship surveys and an examination of available records, the surveyors found the Victory ships to be in good to excellent

condition. In general, it was found that external and internal preservation methods employed for the Victory ships had been adequate. In their final 1983 report, they concluded that all the ships could be activated in a national emergency in less time and at a lower cost than it would take to build new ships.

1985 Test Activations of Two Victory Ships

The George G. Sharp, Inc., surveyors did not examine the underwater hull or estimate the magnitude of work needed to activate and operate the ships. Consequently, Congress appropriated funds in fiscal year 1985 for MARAD to activate two Victory ships to determine the extent of required repairs and the cost of activation. The ships chosen were the American Victory, from the James River Reserve Fleet site, and the Hattiesburg Victory, from the Beaumont Reserve Fleet site. According to MARAD's later report to Congress, these were among the Victory ships in the best condition.

Using single-shift workdays, the Norfolk Shipbuilding and Dry Dock Corporation successfully activated the American Victory in 60 days at a cost of about $2.3 million. The ship successfully completed a 24-hour sea trial and then was placed back in the Reserve Fleet.

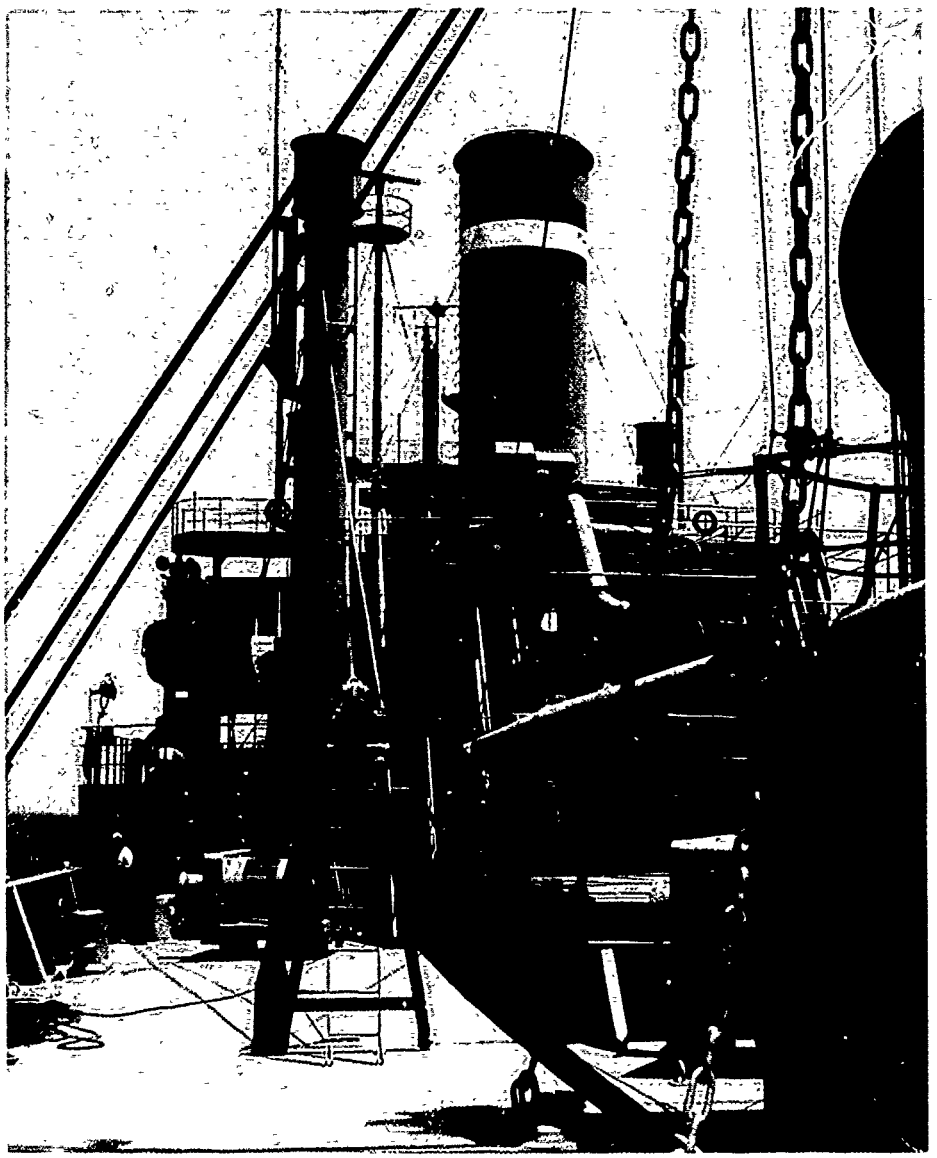
The Hattiesburg Victory was activated at two Texas shipyards within 108 days at a cost of almost $2 million. After a 24-hour sea trial, the ship completed a 43-day sealift mission that took it to Honduras, Panama, and Cuba. The ship experienced some mechanical problems during the voyage, primarily with pumps, that necessitated both shore-based and at-sea repairs.

As the following pictures depict, the exterior of the Hattiesburg Victory shows considerable improvement after the ship's activation.

Figure 4.1: Non-RRF Victory Ship: Before Activation

Source: MARAD

Figure 4.2: Non-RRF Victory Ship: After Activation



Source: MARAD.

MARAD concluded from the activations of the American Victory and the Hattiesburg Victory that the Reserve Fleet Victory ships could be successfully activated. It noted that a shipyard could reduce labor costs by as much as 33 percent per ship if several ships were activated. It reported that a decision to scrap the Victory ships was more dependent upon the technological suitability of the ships than the ships' condition or activation cost.

GAO's Ship Inspections

One of the purposes of our physical inspection of selected Victory ships was to determine whether the condition of the Victory ships at the three Reserve Fleet sites had worsened since the "Victory Ship Validation Study" was completed in 1983.

All of the American Bureau of Shipping surveyors who accompanied us on the inspections of the 18 Victory ships at the three Reserve Fleet sites stated that the ships toured were in the material condition necessary to be activated. The surveyors rated the condition of the ships they inspected from fair to excellent. They noted, however, that it was impossible to determine the exact physical condition of each ship without opening up the internal machinery and making specific tests on the hull, which would have required dry-docking each vessel to be examined.

We also studied the physical condition of six non-RRF ships that were not Victory ships, two selected from each of the three fleet sites. Our selection represented those ships MARAD fleet personnel believed were in the best and worst condition at each site. Inspections were conducted using MARAD's marine surveyors. In conducting these inspections we asked the surveyors to accompany us on each ship and comment on the interior and exterior conditions of the ships using the same method of evaluation that was used previously on the Victory ships. After the inspection, MARAD's marine surveyors concluded that the three ships considered to be in the worst condition could still be activated if necessary, but were in worse condition than the Victory ships in the fleet. The remaining three ships were in much better condition.

Dehumidification Requirement

Dehumidification systems remove moisture from the air within the ship to prevent deterioration caused by the corrosion of metal and the growth of mold or mildew. To ensure proper operation of the systems, key interior spaces on each ship are sealed to prevent moisture leaks. According to criteria established by MARAD, the relative humidity aboard dehumidified ships should be maintained between 35 and 40 percent. To ensure that the ships are properly preserved, MARAD requires that humidity readings be taken monthly and that corrective action be taken if the readings are greater than the required percentages.[1] We found little indication that MARAD had taken effective action to keep the non-

[1]In evaluating the effectiveness of the preservation systems used by MARAD to protect ships, we addressed only the dehumidification system. We could not measure the effectiveness of the cathodic protection system, which protects the underwater portion of the hull, without having the ships dry-docked and measuring their hull thickness.

RRF ships properly dehumidified. American Bureau of Shipping surveyors cautioned that the continued lack of proper dehumidification might cause rusting and corrosion of interior spaces and machinery and might eventually have a negative effect on the ships' activation.

Observed Problems With MARAD's Dehumidification Procedures

At the Suisun Bay fleet, where 44 non-RRF Ships are kept, we found that contrary to MARAD's own requirements fleet personnel did not maintain humidity records on non-RRF ships before April 1990, although they told us that they monitored humidity levels monthly. We were told by fleet office personnel that they interpreted the record-keeping requirement to cover only the first year that a ship was in the fleet. Records kept since April 1990 showed that humidity levels frequently exceeded MARAD's standards. Fleet records showed that a December 1988 wind storm caused a major power outage that resulted in a 2- to 24-month delay before power was restored to all ships. This lack of power was cited by MARAD officials as the main reason for the high humidity levels on some ships from April 1990 to October 1990. Two ships, however, had no dehumidification systems installed.

One of the non-RRF ships we inspected reportedly lacked a dehumidification system because the ship was at one time slated to be upgraded to the RRF. According to MARAD's regional officials, the ship was not upgraded because of a lack of funds, and subsequently it deteriorated and became a scrap candidate.

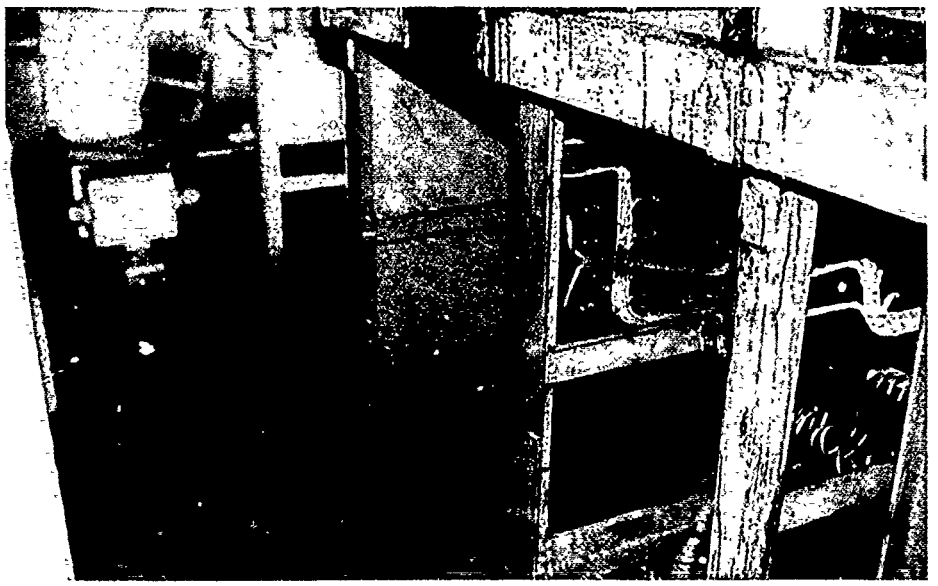
At the James River Reserve Fleet a review of humidity readings from a 3-year period disclosed that only 1 of the fleet's 38 dehumidified non-RRF ships had been checked at least monthly for proper humidity levels. Moreover, that ship had been in the fleet for only 5 months. For the other 37 ships, some monthly readings were not recorded, and in some cases 2 to 6 months had elapsed between humidity readings. In addition to the 38 dehumidified non-RRF ships at the fleet, 4 Reserve Fleet ships had no dehumidification systems installed at all.

Similarly, only one of the fleet's ships had relative humidity that averaged (over a 3-year period) within the desired range of 35 to 40 percent. The majority of the remaining ships had relative humidity readings averaging between 47 and 61 percent. The highest average relative humidity reading was 76 percent. Some of these high humidity readings could easily have been caused by inadequate attention paid to maintaining the dehumidification equipment or water that entered sealed areas.

As shown in figure 4.3, one of the ships we inspected had an obvious hole in the dehumidifier machine's vent pipe, allowing moist air to be pumped back into the sealed ship compartments that the machine was attempting to keep dry. Figure 4.4 shows standing water in a non-RRF ships' emergency generator room. This is part of the interior space that is supposed to be sealed and kept dry by dehumidification.

Figure 4.3: Hole in Dehumidifier Exhaust Pipe

Figure 4.4: Water on Floor in Emergency Generator Room



Our analysis of Beaumont Reserve Fleet records over a 3-year period disclosed that fleet personnel did not always take the required monthly humidity readings. We also found that they did not always maintain the relative humidity levels required by MARAD. However, the records for the 24 non-RRF ships we reviewed showed that 17 ships had average humidity levels below 40 percent, and the remaining 7 ships had levels between 40 and 50 percent.

Our review disclosed that one ship that arrived in September 1989 did not have dehumidification equipment installed until 1 year later. Also, in February 1988, fleet personnel removed dehumidification machines from 10 Victory ships that were declared scrap candidates. In 1989, MARAD decided to keep eight of these ships and place them back under dehumidification protection. Fleet personnel reinstalled new machines on these eight ships by October 1990. Two other Victory ships have a loose asbestos problem that has prevented fleet workers from taking readings since August 1989. Numerous leaks have allowed water and moisture inside these ships.

Reasons Cited for Noncompliance With Dehumidification Requirements

The following are reasons offered by MARAD officials as to why the ships' humidity readings did not average between the required 35 and 40 percent:

- Most of the ships' interior spaces need resealing, and cargo hatches need to be recovered. Because of a lack of scaffolding, it has been too costly and dangerous to repair holes in the tops of the ships' exhaust stacks.
- The dehumidification machines are nearing the end of their useful lives, and replacement parts are difficult to find.
- Maintenance of the RRF is a higher priority than dehumidification of the non-RRF ships.

The Reserve Fleet officials stated that being without proper dehumidification had not helped the ships, but they did not believe that a serious delay in activations would result. Surveyors with the American Bureau of Shipping, who accompanied us on inspections of selected ships, agreed that there did not yet appear to be any significant deterioration of internal areas resulting from improper dehumidification. However, they cautioned that continued lack of proper dehumidification might cause rusting and corrosion of interior spaces and machinery and might eventually have a negative effect on the ability to activate the ships.

Spare Parts

The non-RRF ships' spare parts inventory consists of parts (1) stored aboard each ship and (2) removed from scrapped ships and stored at the fleet sites. MARAD refers to these parts as "shipboard" and "shore-based," respectively. MARAD's inventories of shipboard spare parts are inadequate to ensure quick availability. Moreover, although fleet sites have systems to record and control parts cannibalization, they apparently do not always adhere to the systems' requirements. MARAD's 1985 report on the Victory ship test activation recommended a larger, well-catalogued inventory of spare parts to ensure activations in emergency situations. We saw little evidence of this recommendation's implementation.

Varied Accountability of Spare Parts in Inventories

Among the three Reserve Fleet sites we visited, the accuracy and availability of spare parts' inventories varied. At the Suisun Bay Reserve Fleet site, shipboard inventory records prepared at the time ships entered the fleet were available for 28 of its 44 non-RRF ships (64 percent). These records were available for 22 of the 33 Victory ships and 5 of the 11 other ships. Of the 22 shipboard inventory records available for Victory

ships, 12 were complete and 10 were incomplete. An inventory was considered to be complete if it was keyed to the ship's allowance list and included such information as the equipment supported, the manufacturer, the location of the spare parts, and the number of spare parts on hand, short, or in excess of the allowance list.

We tested the accuracy of records for Victory ship shipboard inventories by comparing recorded inventory balances with on-hand quantities for 19 spare part sets on two Victory ships. About 21 percent of the sets could not be located and 16 percent could not be visually inspected because they were in a sealed container or area. The remaining 63 percent were found as indicated on ship inventory records. In two instances, the ships had more parts than were indicated on inventory records. We did not test the accuracy of the shipboard inventory records for ships other than Victory ships.

The Victory ship shore-based spare parts were being stored under dehumidification, and some parts were not accessible without opening sealed areas. However, we tested the accuracy of the inventory by tracing 33 items from the more accessible areas to inventory records. We found one discrepancy: an item had been improperly tagged. There were no shore-based spare parts for ships other than Victory ships.

The James River Reserve Fleet's personnel stated that they did not maintain an inventory of shipboard spare parts. However, shore-based parts for Victory ships were inventoried and protected by dehumidification. Our limited tests verified the accuracy of this inventory list and confirmed that these parts were protected by dehumidification. There were no shore-based spare parts for other non-RRF ships.

The Beaumont Reserve Fleet had no inventory records showing the types or amounts of spares actually on board the non-RRF ships, but it did have some allowance or requirements lists identifying the types and number of parts needed on board. In contrast, the fleet site had inventory records for Victory ship shore-based spares but no allowance lists. Our limited tests disclosed that these records were accurate and the shore-based parts were protected by dehumidification and were not deteriorating from the elements. There were no shore-based spare parts at the Beaumont Reserve Fleet for non-RRF ships other than Victory ships.

Parts Cannibalization Practices

The process of removing parts from one ship to repair another is called "cannibalization." According to MARAD officials, when non-RRF ships are upgraded to RRF status, some cannibalization of similar non-RRF ships can occur. We found cannibalization of parts was common at all three Reserve Fleet locations. However, our review of MARAD's fleet records disclosed that parts removal in most cases was not well documented or controlled.

At the Suisun Bay Reserve Fleet, failure to follow procedures may have resulted in the unauthorized removal of some spare parts. A nonprofit corporation that was given a Victory ship was authorized to obtain parts from another non-RRF ship storing spare parts. We were told by fleet personnel that the removal of these spare parts from inventory was not monitored or controlled. An allegation that more parts than needed were taken from the ship is currently under investigation by the Department of Transportation. MARAD officials assured us that inventory procedures are now being followed to control parts removals.

At the Beaumont Reserve Fleet, our review of ship files disclosed numerous cases in which parts were removed from non-RRF ships without complete documentation. Our inspection aboard some ships also indicated that removed equipment was not always replaced.

Uncertain Crew Availability for Non-RRF Ships

MARAD has no formal arrangements to obtain crews for the non-RRF ships. Approximately 1,300 licensed and 3,500 unlicensed crew members would be needed for the current inventory. These crews would be hired at the time the ships were activated, and their actual availability would depend on crew members' willingness and ability to serve when needed. The pool from which crew members are drawn is limited, and the information on mariners that is currently maintained is often inaccurate or insufficient to accurately estimate actual crew availability at any given time.

Probable Complications Because of Lax Planning

MARAD has no contractual arrangements to crew the non-RRF ships. A MARAD official said that if the non-RRF ships were activated, MARAD would probably hire private firms to manage and crew them in the same manner as the RRF ships. However, MARAD has not developed plans to accomplish this in the event of activation.

Under such an arrangement non-RRF ship managers would rely on specific labor unions to provide crews when notified of ship activations.

The maritime labor unions would attempt to secure crews by posting job opportunities in their hiring halls or by calling individual members, including retirees and members currently on leave. This system does not guarantee that the crews will be available when needed, since both availability and willingness to respond may vary under different circumstances.

In 1989 MARAD tested the procedural and coordination requirements that would be necessary for a large-scale activation of the RRF. Ship managers were asked to recommend manning levels and identify specific crew members to meet those levels. MARAD officials then made follow-up telephone verifications to determine seafarers' availability and willingness to serve. Of the 743 licensed mariners sampled, about 49 percent could not be contacted at all because of inaccurate or missing information.

The Coast Guard also participated in the test by attempting to verify that the listed crew members had valid licenses. The Coast Guard could not verify licenses for almost 10 percent of the licensed personnel identified in the exercise because of incorrect information or administrative delays in communicating license transactions to Coast Guard headquarters.

Insufficient Mariner Information

The information on mariners that is available at the Coast Guard, MARAD, and the maritime labor unions we contacted is insufficient to estimate actual crew availability for the non-RRF ships at any given time. Also, labor union officials we contacted were not sure whether they could provide crews concurrently for all the ships in the Reserve Fleet. However, the following factors give reason for both optimism and pessimism about the ability to crew all the Reserve Fleet ships:

- MARAD, the Coast Guard, and labor union officials we contacted believe that a large number of licensed and unlicensed mariners is currently available. According to MARAD, there are about 2.6 merchant mariners for each operating merchant ship position (although their actual availability and qualifications are unknown). However, MARAD officials point out that as mariners move to shore occupations, the pool of qualified mariners will diminish.

  Last year MARAD commissioned a study to determine methods for achieving adequate manning of merchant vessels for defense-related needs during mobilization. The final report did not address the specific

manning requirements of non-RRF vessels.[2] However, it concluded that under various scenarios and assumptions, significant shortages of specific manpower skills required for mobilization could be expected. The study points to the continual decrease in the number of U.S flag ships as the reason for the decline in the number of available mariners and the expected mariner shortfall.

The report also states that implementation of a tracking system for mariners would increase crew availability. Such a system would require more specific, accurate, and timely information than is currently maintained and would offer much more assurance that sufficient crews could be identified during a future mobilization.

- Individual mariners have no commitment to serve if requested, and an undetermined number of licensed and unlicensed mariners currently employed in shore occupations may not be willing to sail because of the possible loss of accrued benefits and because their reemployment rights are not guaranteed. This concern may be alleviated somewhat by recent legislation (HR 1578) that provides employment protection for mariners called to meet national emergencies.
- Non-RRF ships should be comparatively easy to operate. Labor union officials we contacted are confident that union members could operate the older steam-powered reserve ships. Because most licensed marine engineers are trained on both steam and diesel propulsion systems, it should take only a short period of training to operate these relatively simple power plants. Union officials also consider the cargo handling equipment on many of the older reserve ships to be simple to operate.
- Government officials we contacted indicated that in national emergencies, the number of potential crew members could be increased by (1) the Coast Guard's relaxing some requirements for unlicensed personnel with prior sea experience, (2) the Federal Communication Commission's modifying its schedule for testing and licensing radio operators, (3) the various federal and state maritime academies' providing special accelerated training programs and allowing students to take license examinations ahead of graduation schedules, and (4) the maritime union training schools' providing accelerated training for updating experienced crew members' rating levels.

MARAD officials said that although they did not have definite plans to request any of these specific actions, they could be initiated whenever necessary.

[2]Crewing the Merchant Marine for Mobilization (Jan. 1991).

- MARAD officials are considering the establishment of a merchant marine reserve program to help ensure future crew availability. Under this program, qualified mariners willing to crew reserve ships in national emergencies would sign a contract obligating them to train annually on the type of ship they would likely be serving, and they would be tracked to better ensure their availability in emergencies. MARAD is not planning to extend the program to non-RRF ships at this time.

Weak Ship Disposal Processes

MARAD lacks current documentation on the non-RRF ships' condition, and there is no established periodic review of the fleet for the sole purpose of assessing individual ship condition. Thus, MARAD's ability to identify ships for disposal is limited. Moreover, MARAD has no formal written criteria for ship disposal or written procedures or policies regarding equipment or parts removal from ships chosen for disposal.

MARAD Lacks Current Ship Condition Documentation

Generally, we found that the most recent documents describing the condition of non-RRF ships were the reports and surveys prepared when the ships were assigned to the Reserve Fleet. In addition, the only comprehensive reports on the condition of Victory ships were prepared over 20 years ago after their return from service in Vietnam. As discussed previously, an inspection was conducted during the 1983 "Victory Ship Validation Study"; however, underwater hulls and some items of unopened machinery were not inspected. Since that time, no overall ship condition inspections or regular test activations have been conducted. Also, according to MARAD officials, established periodic reviews of individual ships have not been done to assess their condition, and the ships have not been periodically ranked on the basis of their physical condition. As a result, there is no current documentation to aid in making ship activation or scrapping decisions on the basis of the ships' relative condition.

MARAD Lacks Written Disposal Criteria

Our review disclosed that MARAD has no written criteria for the disposal of Reserve Fleet ships. However, MARAD officials noted that recommendations for downgrading specific ships originated in MARAD and were subsequently discussed with Navy officials. MARAD officials also noted that individual ships were selected for disposal on the basis of military usefulness (as specified by the Navy), ship condition, and tonnage. However, we found no written guidance governing the selection process.

MARAD's report to Congress on the 1985 test activations of the two Victory ships recommended the establishment of criteria for the disposal of

the ships and the removal of equipment and parts. However, no apparent action has been taken regarding this recommendation. The recommendation specified that as long as there was a possibility that a large number of Victory ships would be retained for possible activation, any further scrapping should be deferred until

- formalized scrapping criteria had been established on the basis of national defense needs, and
- a procedure had been established to determine which equipment and spare parts should be removed and stored for possible Victory ship use.

From the time the report was issued in September 1985 until May 1991, 31 Victory ships had been scrapped.

MARAD officials indicated that there were also no written policies or procedures for stripping Reserve Fleet ships before their disposal. One official noted that MARAD's Division of Reserve Fleet authorized the removal of valuables and some equipment and components common to other reserve ships before they were sold for scrap. However, we found no evidence of a systematic approach for such removal. In addition, MARAD officials indicated that some ships were not stripped before sale because scrappers assessed a ship's value on the basis of both tonnage and content.

We believe current ship condition information is important to identify the order in which ships would be activated and, conversely, to determine the logical order in which ships should be removed from the fleet.

Matters for Congressional Consideration

We did not estimate the additional costs that would be necessary to better maintain these ships; however, Congress will need to consider the likely impact on the overall Reserve Fleet's budget. Without a budget increase, additional funds spent improving the non-RRF ships will likely reduce the resources available to the RRF. If Congress chooses to continue with the gradual 10-year phaseout of the non-RRF ships, consideration should be given to directing that the Maritime Administrator improve the ships' maintenance and management by following the specific steps we outline in our recommendations.

Recommendations

We recommend that the Maritime Administrator take the following actions:

- Establish managerial practices that ensure (1) recommendations of various studies and reports on the non-RRF ships receive prompt attention; (2) ships are preserved and maintained in accordance with existing regulations; and (3) spare parts inventories are complete, current, accurate, and based on established requirements, including proper controls over parts cannibalization.
- Establish a formal plan for crewing non-RRF ships, providing assurance that crews would be available when needed. Under this plan, MARAD would (1) include non-RRF crew requirements in future Reserve Fleet mobilization exercises and (2) periodically review or test mariners' availability and willingness to crew the entire sealift Reserve Fleet.
- Direct that current non-RRF ship condition information be maintained and that this data be required as a basis for identifying specific ships for upgrade to the RRF or for scrapping.
- Ensure that policies and procedures are established and followed to control the removal of needed equipment and parts prior to disposal of Reserve Fleet ships.

Agency Comments and Our Evaluation

DOD did not comment on this part of our report. MARAD generally concurred with our management findings and agreed to take actions in response to our four specific recommendations. Further, MARAD said that many of the improvements we sought could be made without an increase in funds. Although we believe that the promised improvements could increase the overall viability of the fleet, we remain concerned that additional funds may be required to fully implement our recommendations concerning the preservation of the ships.

MARAD stated that if the Mobility Requirements Study identified a continued need for non-RRF ships, it would (1) upgrade and centralize management of the non-RRF ships' spare parts; (2) establish formal plans for crewing all Reserve Fleet ships, exercise these plans, and periodically test mariner availability; (3) survey the condition of new ships as they enter the fleet; (4) use information from these surveys, as well as the first-hand knowledge of field ship management and reserve fleet staffs, to make upgrading and scrapping decisions; and (5) formalize policies and procedures for the removal of parts and equipment in a ship disposal guide. MARAD also stated that it would immediately ensure that all required dehumidification system readings were taken as prescribed (or otherwise be fully documented) and that headquarters staff would exercise closer oversight of fleet preservation operations.

It appears to us that MARAD's planned response to our report will satisfy most of our recommendations regarding the importance of obtaining sufficient crews for the non-RRF ships, adequately controlling spare parts, and formalizing policies and procedures for spare parts removals. We remain concerned, however, about (1) the inattention to the preservation of the non-RRF ships and (2) the need for additional funds to adequately maintain and manage these ships.

As discussed in our report and in recent testimony, we found instances where water had penetrated into spaces on non-RRF ships that were supposed to be kept dry and under dehumidification. Fleet personnel told us that necessary repairs to such things as hatch coverings and door seals had to be deferred. We were also told that a number of the dehumidifying machines had reached the end of their economical lives, repair parts were increasingly difficult to obtain, and many machines needed to be replaced. Priority attention on the RRF and funding shortfalls were cited as reasons why such maintenance was not being accomplished on the non-RRF ships.

MARAD's intent regarding the continued preservation of the non-RRF ships appears limited to taking monthly humidity readings or documenting why they were not taken. As mentioned earlier, American Bureau of Shipping surveyors told us that continued high humidity readings could eventually have a negative effect on MARAD's ability to activate the ships. Accordingly, we continue to believe that if it is decided to keep them, additional funding may be required to better protect the non-RRF ships.

MARAD's Management of the 510(i) Ship Exchange Program

As requested, we also evaluated various aspects of MARAD's Ship Exchange Program, authorized in section 510(i) of the Merchant Marine Act of 1936 (as amended). These investigated areas included MARAD's management and administration of the overall program and its conduct in the trade-out of the ex-USS Shangri-La. Our evaluation revealed only one instance in which MARAD officials should have exercised better judgment in the trade-in of two ships. This instance, however, occurred in 1983, and we found no indications that similar situations had transpired since that time. With regard to the USS Shangri-La trade, we believe MARAD acted properly.

Background

Section 510(i) of the Merchant Marine Act of 1936, as amended in 1977, specifies the ship disposal method predominately used by MARAD. Until November 1990 the Secretary of Transportation was authorized to acquire suitable vessels, which had been constructed in the United States and had never been under foreign documentation, in exchange for obsolete Reserve Fleet ships. In November 1990 section 510(i) was amended to authorize the acquisition of suitable U.S. vessels with funds derived from the sale of obsolete Reserve Fleet vessels. From 1977 to that time, MARAD's administration of the section 510(i) program began when a commercial ship owner reported to MARAD its intention to dispose of a ship considered uneconomical to operate. Officials from the Navy and MARAD then determined whether the potential trade-in candidate ship(s) met their needs.

To acquire the trade-in ship(s), MARAD's headquarters officials (in consultation with Navy officials and MARAD regional directors and fleet superintendents) identified Reserve Fleet vessels for trade-out that were no longer considered militarily useful. As previously discussed, we found no written guidelines or criteria for selecting specific trade-out ships.

Under past and present procedures, MARAD advertises the trade-out ships to scrappers, both domestic and foreign, by preparing solicitation packages and sales notices. This information is mailed to a large number of interested parties. MARAD also places advertisements in the Commerce Business Daily. Interested parties are invited to inspect the vessels.

Offers are reviewed by a three-member MARAD vessel disposal committee to determine whether they reflect fair value for the trade-out vessels. The committee then compares these offers with the current market value for scrap metal and previous 510(i) transactions. If the offer is found acceptable, MARAD's contracting officer awards a contract to the highest offerer.

MARAD's Administration of the Section 510(i) Program

From fiscal year 1980 through 1990, 163 vessels of various types (including some former Navy ships) have been traded out in exchange for 47 newer, generally larger, more militarily useful cargo vessels. We reviewed only the 510(i) transactions that involved the trade-in and trade-out of ships prior to the recent change allowing cash sales and the retention of funds by MARAD for future ship acquisitions.

Our review of program records involving the 47 newer trade-in ships during this period revealed only one example of possible poor judgment in MARAD's administration of the program.

In 1983, MARAD arranged for two ships, the Jeff Davis and Thomas Nelson, to be surveyed because they were being considered as trade-in candidates. The surveyors reported that the ships were in poor condition and a MARAD official issued a memorandum indicating that the vessels were not suitable RRF candidates. However, MARAD officials subsequently decided to acquire these two ships because they did not consider them beyond economical repair and they were potentially more productive than the Victory ships that were being maintained in the Reserve Fleet at that time. The ships were traded in to the Reserve Fleet in August 1983 at a cost of about $1.7 million. Both ships were subsequently traded out 2 years later for about $0.8 million. Had MARAD not acquired these two ships in 1983, but sold its reserve ships 2 years later, it would have received an additional $3.1 million because scrap prices had substantially increased during the interim.

The Jeff Davis and Thomas Nelson were selected as trade-out candidates and scrapped instead of other ships they were supposed to replace—Victory ships, which remain in the Reserve Fleet. We believe their acquisition was an unwise decision that resulted in a premature loss of trade-out assets to the government; however, we were unable to find specific documentation of the rationale for the trade-out.

Our review did not disclose any other instances in which MARAD exercised poor judgment in its administration of the 510(i) program.

The Shangri-La Trade-Out Was Proper

We were specifically asked to analyze the processes employed by MARAD in administering the trade-out of the former USS Shangri-La, a World War II aircraft carrier. This former Navy ship was transferred to MARAD to be scrapped.

We found that MARAD's attempts to dispose of the ship domestically, as initially requested by the Navy, resulted in unacceptably low offers. With Navy approval, MARAD then offered the ship on the world market. A contract to scrap the ship was awarded to the highest bidder (a Taiwanese company) in August 1988, in exchange for a cargo ship of less value and a cash payment. The Shangri-La sale generated $5.1 million in cash and a trade-in vessel valued at $2.1 million.

The Shangri-La trade was unusual for two reasons: (1) a former military combatant ship was sold to a foreign entity, and (2) there was a $5.1 million difference between the traded ships. However, the Department of the Navy had demilitarized the Shangri-La by removing militarily sensitive equipment and materials before transferring it to MARAD. Records indicated that the Secretary of the Navy approved the ship's transfer to MARAD for disposal. In the case of the difference in value between the Shangri-La and the traded in cargo ship, MARAD documents show that the $5.1 million was properly deposited in the Vessel Operations Revolving Fund, as required by section 510(i).

Comments From the Maritime Administration

US Department
of Transportation
**Maritime
Administration**

Administrator

400 Seventh Street, S.W
Washington, D C 20590

0[illegible] 1991

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and International
Affairs Division
U.S. General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Conahan:

As requested in your June 25, 1991, letter, we have reviewed your draft report entitled Strategic Sealift: Part of the National Defense Reserve Fleet is No Longer Needed. Our comments are enclosed.

Sincerely,

Warren G. Leback

CAPTAIN WARREN G. ~~LEBACK~~
Maritime Administrator

Enclosure

DEPARTMENT OF TRANSPORTATION REPLY

TO

GAO DRAFT REPORT OF JUNE 25, 1991

ON

STRATEGIC SEALIFT: Part of the National Defense Reserve Fleet Is No Longer Needed (Code 394382)

SUMMARY OF GAO FINDINGS AND RECOMMENDATIONS

GAO believes that the non-Ready Reserve Force (RRF) segment of the National Defense Reserve Fleet (NDRF) is no longer needed and suggests that Congress consider directing the Maritime Administration (MARAD) to scrap most of the non-RRF ships on an accelerated basis. GAO found that requiring domestic scrapping would substantially reduce sales proceeds. GAO found that the non-RRF ships probably could be activated and, if Congress decides to retain these ships, recommends that MARAD institute an enhanced maintenance and management program for the ships, requiring additional costs. GAO did not estimate the additional costs needed to better maintain the ships, nor did GAO indicate to what level beyond the 30 to 120-days ships should be maintained.

See comment 1.

SUMMARY OF DEPARTMENT OF TRANSPORTATION POSITION

The Department of Transportation (DOT) believes that any decision on the future need for these ships should be made only after the results are known of the ongoing Mobility Requirements Study (MRS), being conducted by the Joint Chiefs of Staff. If the ships are then found to be not needed for national emergencies, the disposal of the ships should be managed in such a way as to maximize monetary returns to the Government by continuing to accept bids from firms worldwide and by disposing of the ships when market conditions are most favorable. DOT agrees with the GAO finding that the non-RRF ships could be successfully activated; DOT also believes that MARAD can continue to preserve these ships effectively without the expenditure of added funds.

POSITION STATEMENT

Finding: GAO believes that the non-RRF ships are no longer needed because of improvements in sealift capabilities that were made during the 1980's. GAO supports this position by stating that these ships were not called upon during the Persian Gulf War. (Technically, two "NDRF" aviation-support ships (TAVB's), the CURTISS and the WRIGHT, were called into DESERT STORM use.) GAO believes that the non-RRF ships

See comment 2

are no longer technologically suitable and finds it difficult to envision a scenario in which they would be needed. GAO suggests that MARAD accelerate its plans to scrap all of these ships except those being held for upgrade to the RRF or for other special purposes, with sales proceeds going to enhance the RRF.

DOT Response: The long-standing role of the non-RRF ships has been for potential use in meeting Defense Department (DOD) sealift requirements. DOD, as well as FEMA, planners continue to rely on these ships. As recently as February 1991, DOD indicated that the NDRF ships, including the Victory Ships -- which make up most of the non-RRF ships -- were still considered as DOD's final source for Government-owned reserve sealift capacity. In line with this and long-standing defense guidance, MARAD has maintained the non-RRF ships at very minimal expense so as to have them available within 30 - 120 days of notification of their need. Of course, our main priority has been to ensure the ready availability of the RRF ships, but we and DOD have continued to believe that maintaining the non-RRF fleet as it is currently organized is wise, cost effective, and prudent. (See attached correspondence from The Joint Staff, dated 29 May 1990; The Secretary of Defense, dated 1 June 1990; the Office of the Chief of Naval Operations, dated 5 February 1991; and FEMA's Office of Mobilization Preparedness, dated 5 July 1991.)

As set forth in GAO's draft report, as of May 31, 1991, the NDRF consisted of 212 ships, including 96 RRF ships and 116 non-RRF ships. (Historically, about half of the RRF ships have been berthed within one of MARAD's three reserve fleets; the other half have been outported.) Of the 116 non-RRF ships, GAO's suggestions for accelerated scrapping would apply to 92. The remaining 24 non-RRF ships include 17 RRF upgrade candidates, 3 State Academy schoolships, the 2 TAVB's mentioned above, and 2 ships on loan to other federal agencies.

Seventy-one of the 92 non-RRF ships in question were Victory Ships. Although the Victories are approaching 45 and 46 years old, they had been operated for less than ten years. The ships are technologically well-suited for carriage of ammunition and other breakbulk military cargoes. They are excellent for operations where shallow-draft shipping is needed.

Part of the "lessons learned" from the massive movement of coalition forces and equipment to the Persian Gulf was the critical role of sealift. On the heels of this massive operation, DOD is now fully engaged in a comprehensive and extremely important analysis, the MRS, which will determine Defense sealift needs during the 1990's and beyond. The results of this study are

expected in the late Fall. We believe that it would be premature to make any decisions on accelerated disposal of the non-RRF ships before the results of the MRS are known, particularly because it costs so little -- only about $14,000 per ship or a total of $1.3 million annually for the 92 ships, less than three-quarters of one percent of 1992 RRF funds -- to keep these ships available for activation.

If the MRS determines that some or all of the non-RRF ships are no longer needed in the short term, MARAD will immediately discontinue its minimal efforts to preserve them and, while continuing to ensure their safe berthing, will institute a revised scrapping plan that will allow MARAD to maximize returns to the Government from their sale. Unless otherwise required by legislation, this will include offering ships for sale worldwide and when market conditions indicate that returns will be high. We will not offer the ships for scrapping in numbers which would artificially and temporarily depress market prices to the detriment of the Government and others similarly attempting to dispose of their assets. The sales proceeds will be deposited, as required, into MARAD's Vessel Operations Revolving Fund (VORF) to be used to acquire newer and more useful ships for the NDRF as suitable ships become available, including ships for possible upgrade to the RRF. VORF cannot be used to upgrade vessels to RRF status. Moreover, GAO's estimate of $38 to $42 million in revenue from the sale of these ships assumes that all of them were scrapped at once. We believe that this level of receipts could only be achieved by scrapping the ships selectively over a longer time frame.

MARAD is not categorically opposed to scrapping non-RRF vessels. In fact, with the enactment of new section 510(i) exchange authority last year, MARAD began a policy of disposing of those ships no longer deemed militarily useful and which were in the poorest material condition. MARAD is using these assets to maximize the return to the Government but also with the objective of making the best use of the Government's assets. For example, last December MARAD requested scrap bids on 12 such ships. Because the scrap market was generally weak, we received adequate bids on only four of the ships. Accordingly, we cancelled the solicitations on the other eight ships. A six ship disposal solicitation was issued in June and closes on August 4, 1991. If bids prove high, MARAD would proceed immediately with offering additional non-retention vessels for scrap.

Finding: GAO found that domestic firms usually bid

considerably lower than foreign firms and that limiting scrap ship sales to domestic firms would substantially reduce sale proceeds.

DOT Response: DOT agrees fully with GAO's finding. Limiting scrapping to domestic firms only would prevent the taxpayer from obtaining a fair return on these Government assets. Any benefit to domestic firms from a restricted sales policy would be temporary and could result in even lower bids from the firms than would otherwise be expected. If Congress should decide to impose a full or partial set-aside of the ships to domestic firms, safeguards should be included which would preclude the ships' resale to foreign parties. MARAD also agrees with GAO's finding that, because the number of non-RRF ships to be scrapped is small, the effect on the domestic market would be both limited and temporary.

Finding: GAO determined the non-RRF ships probably could be activated if necessary and that MARAD does not make repairs to the ships or perform enough preventive maintenance on them. GAO pointed out certain discrepancies in ship preservation practices, particularly with respect to dehumidification (DH) procedures and the spare parts program. GAO stated that MARAD's disposal procedures need to be improved. GAO found that there are no formal plans to crew the non-RRF ships and questions whether the ships could be crewed.

DOT Response: DOT agrees that the non-RRF ships could be reactivated and, if in fact needed, would be of substantial value in a national emergency. We again urge that the results of the MRS be examined before any decision is made on the pace of ship scrapping.

At the time most of the non-RRF ships reentered the NDRF after service in Vietnam, they were laid up in such a manner so as to be reactivated in a 30 - 120 day time frame. The goal was to maintain the ships' critical hull, propulsion, and cargo handling systems in essentially the same condition they were in as when the ships reentered the reserve fleet. This was accomplished by bringing the ships' cargo gear below decks and placing the ships' engine and navigation spaces and the removed cargo gear under DH preservation sc as to preclude deterioration. The hulls were protected underwater by our very effective cathodic preservation system.

Initially, a painting program of the ships' exteriors was implemented, but these efforts were phased down in the late 1970's to provide some of the increased staff needed for the new, higher priority RRF program. The phase-down of the painting program has led to the

formation of a certain amount of surface or "running" rust. This is a cosmetic matter only, and will not impact our ability to maintain the ships in the future or to activate them to meet defense or emergency contingencies.

It was neither intended nor were funds available to upgrade these ships or to perform preventive maintenance on them. Simply stated, it has been our policy to preserve them, as is, in a cost-effective manner for possible use, if and when needed. Judging from GAO's findings as well as those of several previous studies, our DH and cathodic preservation systems have been quite effective. We have no doubt that these ships can be successfully reactivated, outward appearances notwithstanding, in the 30 to 120-day schedule for which the program was designed.

We agree with GAO that there have been lapses in the DH systems, mainly caused by local power outages, and that there were discrepancies in the recording of DH readings. We have just replaced the electrical distribution system at the Beaumont Reserve Fleet, and a contract to upgrade the system at the James River Reserve Fleet will be awarded this Fall. Funds permitting, we plan to enhance the Suisun Bay Reserve Fleet's electrical system in the near future. All required DH readings will be taken each month or otherwise fully documented. Any needed corrective actions will be taken immediately; however, it should be noted that ABS surveyors who accompanied the GAO inspection team agreed that there did not appear to be any significant deterioration of internal areas resulting from lapses in the DH systems.

With respect to GAO's description of the test activation of the HATTIESBURG VICTORY, it is true that the ship encountered some mechanical problems during its voyage. However, these problems were minor, not dissimilar to the normal operating problems that all ships, even more modern ones, experience. The bottom line is that the test activation of the HATTIESBURG VICTORY, as well as that of the AMERICAN VICTORY, was successful.

Depending upon DOD sealift requirements, as discussed above, MARAD will formalize its non-RRF ship spare parts procedures and centralize management of the program. This will assure that prior to ship disposal all usable spares and major equipment items common to RRF and other retention ships are removed and properly stored. Additionally, MARAD will develop a written ship disposal guide covering such matters as scrapping priorities, removal of parts prior to offering vessels,

cannibalization, procedures to be followed, etc.

With respect to crewing, MARAD has plans in place for the expeditious crewing of the RRF ships. No similar written plans exist for the non-RRF ships. As a result of the Persian Gulf experience, MARAD, DOD, and others are evaluating options for creating a Civilian Merchant Marine Manpower Reserve Program with start-up implementation projected in 1993. Certainly, such a program is needed. Equally important is legisla ion that would ensure civilian seafarers' reemployment rights to guarantee their return to their normal peacetime jobs following a national emergency.

Crews for the non-RRF ships are not immediately needed as they are for the RRF ships. The non-RRF ships are activated over 30 to 120-day periods. Most of these ships are Victory ships which are relatively easy to operate and virtually identical, allowing for standardized crew training. Crewing for the non-RRF ships is based on the abilities of the maritime academies to reduce training times, along with using a 90-day training curriculum for unlicensed personnel to meet the documentation requirements, as well as use of existing union schools to accelerate and expand their programs.

The task would undoubtedly be strenuous, but we see no insurmountable problems in providing crews for the non-RRF ships in the 30 to 120-day time frame. This was done in World War II and for the Korean and Vietnam Wars. For example, the maritime academies went on a two-year program, accelerating training of classes then in being. MARAD established schools to upgrade licenses and provide refresher training, using a 90-day training course. The labor union schools also increased their capacities and accelerated training. Finally, if necessary, the U.S. Coast Guard can, by administrative action, reduce some requirements for both licensed and unlicensed personnel. In sum, we believe there will be sufficient time to locate and train crews for these ships, when needed.

Recommendations: If Congress decides that the non-RRF ships should be retained, GAO recommends that the Maritime Administrator implement four recommendations, as set forth below, aimed at enhancing the condition of these ships. GAO points out that Congress will need to consider a budget increase for this and that, without such an increase, funds spent on improving the non-RRF ships would reduce the resources available to the RRF.

DOT Response: The non-RRF ships and the RRF ships are funded from different appropriations. Thus, added work

on the non-RRF ships would not be at the expense of the RRF ships, unless Congress decided to transfer funds between accounts. Moreover, many of the improvements GAO recommends for the non-RRF ships can be done without an increase in funds. Unless the NDRF's mission were changed, we believe that in the current budgetary environment it would be imprudent to spend large quantities of additional funds on these ships, particularly since expenditures at current levels have proven so effective.

Recommendation 1: Establish managerial practices to ensure that (1) recommendations of various studies and reports on the non-RRF ships receive prompt attention; (2) ships are preserved and maintained in accordance with existing regulations; and, (3) spare parts inventories are complete, current, accurate, and based on established requirements, including proper controls over parts cannibalization.

DOT Response: MARAD has management systems that ensure that recommendations addressed to MARAD receive prompt and adequate attention. With regard to the one case detailed by GAO, we chose not to follow the recommendations of the Victory Ship Validation Study. In the interest of saving money, we do not try to correct problems on the non-RRF ships; rather, we attempt to maintain the original condition of the ships. Known deficiencies are noted and would be corrected if the ships were activated. Effective immediately, all required dehumidification preservation system readings will be taken as prescribed or otherwise fully documented; the Headquarters staff will exercise closer oversight of fleet preservation operations. If we decide to retain the ships, management of the spare parts for the non-RRF ships will be upgraded and centralized in Headquarters. Of course, RRF spare parts will have priority.

Recommendation 2: Establish a formal plan for crewing non-RRF ships providing assurance that crews would be available when needed.

DOT Response: MARAD will establish formal plans for crewing all the NDRF ships that the MRS identifies as needed for future contingencies. We will include such requirements in future mobilization exercises and periodically test mariner availability. We believe that we can have such plans in place within three months of a decision to retain these ships.

Recommendation 3: Direct that current non-RRF ship condition information be maintained and that this data be required as a basis for identifying specific ships

for upgrade to the RRF or for scrapping.

DOT Response: As GAO's draft report indicates, condition surveys of the Victory Ships were conducted upon their return to the NDRF. They were immediately placed under DH and cathodic preservation. The condition surveys of these ships should still be essentially valid. Any parts removal or subsequent damage to the ships should be noted in each ship's file. Thus, good data on the Victories is available. Given the effectiveness of the DH and cathodic preservation systems, we see no need to spend money to conduct new surveys or on such possible items as drydockings. As new ships enter the NDRF, condition surveys will be performed. This information, as well as the first-hand knowledge of MARAD's field ship management and reserve fleet staffs, will be relied on to make upgrading and scrapping decisions.

Recommendation 4: Ensure that policies and procedures are established and followed to control the removal of needed equipment and parts prior to disposal of Reserve Fleet ships.

DOT Response: Our current policies and procedures for the removal of parts and equipment prior to disposal will be formalized and included in the ship disposal guide to be developed, as mentioned above. We expect to complete the guide in about four months.

The following are GAO's comments on the letter dated August 2, 1991, from the Maritime Administration.

GAO Comments

1. This report does not suggest that MARAD improve non-RRF ship conditions any more than necessary to meet current activation requirements.

2. During the course of our review, MARAD could not provide any specific civil agency requirements for the non-RRF ships.

Comments From the Department of Defense

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-8000

PRODUCTION AND LOGISTICS

August 12, 1991

(L/TP)

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and International
Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report entitled "STRATEGIC SEALIFT: Part of the National Defense Reserve Fleet is No Longer Needed," dated June 25, 1991 (GAO Code 394382/OSD Case 8744).

The DoD generally agrees with the GAO discussion of ship disposal. The GAO should, however, state very clearly the expected revenue reduction if legislation limits the sale of Reserve Fleet ships to domestic scrapping companies. Table 3.1 of the report shows that the reduction in revenue could be from 45 percent to 94 percent. That should be noted prominently in the narrative.

The DoD is not in agreement with the GAO on the subject of the future contribution of non-Ready Reserve Force ships. The GAO does not substantiate the claim that *OPERATION DESERT SHIELD* or *DESERT STORM* severely strained U.S. sealift capabilities. On the contrary, the President's success in assembling a broad coalition resulted in numerous allied ships being offered for charter without having to requisition a single U.S.-flag ship. (In contrast, the U.S. did requisition both passenger and cargo aircraft from the U.S. air carriers.)

Additionally, it is premature to conclude that all of the non-Ready Reserve Force ships in the National Defense Reserve Fleet are no longer needed. The DoD is currently conducting a congressionally-mandated mobilization requirements study that should be completed later this year. Any action to resize the National Defense Reserve Fleet should take into account the results of this mobilization study.

The GAO offers good reasons for reviewing the size of the National Defense Reserve Fleet and reducing the non-Ready Reserve Force ships, but it does not offer a set of criteria for determining how many of the ships can be scrapped. Rather than suggesting that the Congress consider directing the Maritime Administrator to scrap most of the non-Ready Reserve Force ships as soon as practicable, the DoD would support a suggestion that the Congress direct the Departments of Defense and Transportation to develop criteria for sizing the non-Ready Reserve Force portion of the Reserve Fleet, and then apply the criteria to developing a schedule for scrapping the ships that are no longer needed. Such criteria should consider the needs for a full range of scenarios, both regional cases (including deployments to locations with austere or no port facilities) and larger conflicts that would require the reconstitution of a larger conventional force. Further, a decision on the size of the Reserve Fleet should take into account Maritime Administration projections for the future size of the U.S.-flag fleet.

The DoD agrees with the assessment that the non-Ready Reserve Force ships could be activated. The DoD notes, however, that the Maritime Administration has done the best job possible with the limited funds available for the non-Ready Reserve Force ships. Consistent with DoD guidance, the Maritime Administration has placed priority on the Ready Reserve Force portion of the National Defense Reserve Fleet.

The crew shortages referenced in the study commissioned by the Maritime Administration, "Crewing the Merchant Marine for Mobilization," will occur in the mid-1990's, when the Ready Reserve Fleet is expected to grow from 96 to 142 ships. Concurrently, the National Defense Reserve Fleet is expected to be reduced to approximately half its present size. While National Defense Reserve Fleet crewing will not be easy, the numbers involved will be rather small and could also be addressed by the Merchant Marine Reserve Program also discussed in the draft report.

In general, the DoD does not agree that the National Defense Reserve Fleet should be scrapped faster than the programmed Ready Reserve Force expansion. National Defense Reserve Fleet reductions of unit equipment capability should be tied to increases in the Ready Reserve Force plus active U.S.-flag capability. In order to maintain total equivalent U.S.-controlled capability, the DoD would support an

accelerated National Defense Reserve Fleet scrapping schedule only if tied to Ready Reserve Force expansion. Any scrapping of the Reserve Fleet should also consider existing market conditions and be scheduled in a manner that will maximize the economic return.

Most of the GAO findings and suggestions to the Congress, and all of its recommendations, are directed to the management of the Reserve Fleet by the Maritime Administration. While the DoD is interested in the outcome of the efforts by the Maritime Administration to do the best job within the funds available, the DoD is not the appropriate agency to comment on most of these issues. Nevertheless, the opportunity to provide Department comments on the report in draft form is appreciated.

Sincerely,

David J. Berteau
Principal Deputy ASD(P&L)

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